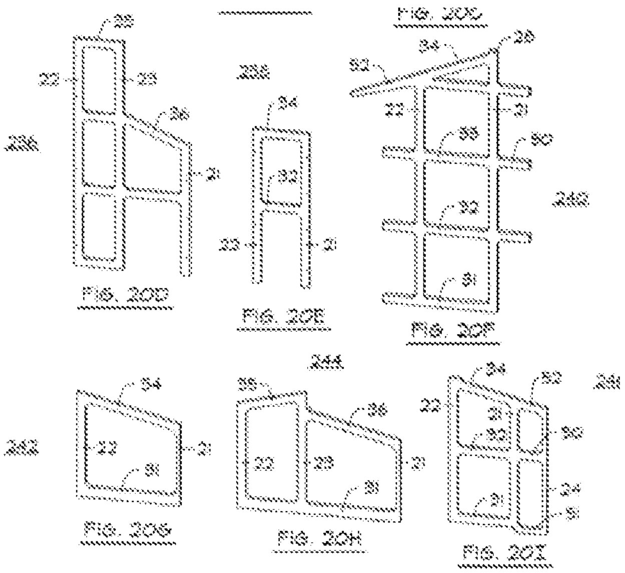
claim 4

4. A map for claim 4 is presented below:

4. (Original) The construction block of claim 2 further comprising

(FIG. 20I) a second cross beam(32) positioned between the base beam (31) and the top beam (34); and

a substantially vertical intermediate chord(21) positioned between the first edge chord (22) and the second edge chord (24), such that the intermediate chord (21)connects a portion of the second cross beam (32) to a portion of the base beam(31).



claims 12-14

5. Claim 12 has been amended to be dependent upon claim 1.

claim 19

6. Claim 19 has been amended to be correct “edge”.

claim 20

7. Claim 20 has been amended to cite a “first top support beam” and a “second top support beam” .

claim 22

8. Claim 22 introduces (FIG. 20F) a cantilever beam extension of a base beam (31). That limitation is not presnet in Claim 20.

§ 102 Rejections

9. Claims 1-3, 5, 6, 9, 12-14, 15-18, and 20-33 have been rejected as being anticipated by U.S. Patent Application 2002/0059756 to Matsubara.

10. Independent Claim 1 has been amended to cite “wherein the first edge chord, the second edge chord, the top support beam, and the cross beam comprise a structural grade castable material and reinforcement. “

11. Independent Claim 20 has been amended to cite wherein the first edge chord, the second edge chord, intermediate chord, the top support beam, and the cross beam comprise a structural grade castable material and reinforcement; .

12. Matsubara does not teach or suggest the use of structural grade castable material or reinforcement:

> “[0055] As used throughout the specification and claims, the term "modular unit" refers to and means a single structural component which may be formed as a unitary structure ***from a single piece of material***, or which may be formed of two or more pieces of material integrated together to form a single block unit. The term "block" refers to and means a structure or support having components which are formed, for example, of a solid or hollow material and which may be formed of a single piece of solid or hollow material or two or more pieces of solid or hollow materials integrated together. The term "modular structure" refers to and means a structure which is constructed from a plurality of modular units and which may be constructed in a wide variety of structural forms. For example, the

> modular units can be connected together in the form of a building structure, a transport system (e.g., container structure), or a bridge structure."
>
> "[0072] Preferably, each of the first through sixth ladder-like frames 2-5 and 7-8 and the corner modular unit 6 is formed as an integral unit ***from a single piece of material, such as wood.*** However, it is understood by those skilled in the art that the ladder-like frames 2-5, 7-8 and the corner modular unit 6 may be formed of structural materials other than wood. For example, ***structural materials including hardened wood chips, metals such as iron, steel, aluminum or the like, or any of a number of known plastic materials such as polystyrene, several of the vinyl chlorides, several of the polyacrylates and polymethacylates, and the like are suitable*** for the ladder-like frames 2-5, 7-8 and the corner modular unit 6."

Matsubara teaches teaches a very different construction technique from the current invention:

Matsubara

"[0010] Another object of the present invention is to provide a set of modular units ***which can be readily assembled by amateur builders*** to construct modular structures in a relatively short period of time."

"[0011] Another object of the present invention is to provide a set of modular units ***each of which is of a configuration, size and weight so as to enable a single amateur builder with minimum amounts of skill to transport and manipulate the same during construction of modular structures***."

Reduced scale subcomponents that can be handled by single person

Minimizes part size at the expense of part count –construction of a short wall segment with a single opening consists of a dozen parts

Intended for self construction by unskilled individual

Enables the gradual assembly of a small structure by unskilled individuals

Current invention (LadderBlock)

Large scale precast open frame and platform structure

Maximizes size to minimize number of parts

Provides unique tools and block set for the design and construction of engineered structure

Provides unique speed in the construction of habitable open-frame structural platforms and buildings.

> "[0170] Although blocks may be combined in a variety of configurations, the basic methodology at play in this building system is the interconnection of manufactured blocks to form independently stable structural modules; these modules generally form three-dimensional multi-sided frames. Precast blocks are generally open frameworks with rigid joints at member intersections. They are made of **structural grade castable material** such as concrete and are reinforced, such as by rebar, as indicated by an engineering analysis for a given application."
>
> "[0172] Independent base modules are typically interconnected with roof and/or floor construction that generally consists of other pre-assembled modules that are themselves independently stable. The independent modules effectively create large-scale building blocks that may be erected and will stand stable without the need for temporary shoring or bracing, in contrast to conventional construction that relies on diagonal bracing or shear walls for lateral stability. By building with large, independently stable blocks made of interconnected precast parts, construction may progress much more rapidly and safely."
>
> " [0174] In contrast with conventional construction techniques that concentrate forces to conserve usable floor space, this system intentionally distributes these forces across a wide base that minimizes stresses on the supporting surface. By building this base so wide that the volume enclosed by the structural element is itself usable space, this structural advantage can concurrently offer functional advantages.
>
> "[0177] Assemblies of blocks may be utilized for functions beyond that of the primary structural system for a building. Beam elements 75 and 76 between block columns, pairs, or individual blocks may be utilized to support intermediate levels of occupied floor space"

13. Applicant argues that the claims of the current invention are neither anticipated by nor obvious in view of Matsubara. The claims are not anticipated by Matsubara because there is no suggestion of concrete or other structural grade castable material reinforced elements, or of a system that would enable the construction of an open frame structure of any significant span, in that reference. The claims are not obvious in view of Matsubara because Matsubara teaches away from the use of heavier and larger precast structural elements and does not enable the construction of open frame or platform construction that is required for significant building projects. The current invention enables **speed of construction of built usable space** that is orders of magnitude faster than the construction method taught by Matsubara.

14. All other pending claims are dependent upon Claims 1 or 20.

15. Applicant argues that claims 1-9, 12-26, and 29-33 are now in condition for allowance.

16. Thank you for your continued assistance in this application.

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Respectfully submitted,

_/Rick B. Yeager/ ___

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